Notebook, N-03-12-12.1

This notebook was used by Edison during December 1903. Most of the entries pertain to x-ray experiments. Included are notes regarding efforts to find sources of radium and to discover radiation in addition to x-rays. Near the end of the book are scattered notes and drawings relating to storage batteries and phonographs. The book contains 150 numbered pages followed by 11 unnumbered pages. Some pages are blank, and several pages have been removed from the back of the book.

2nd Talk [illegible] 142 H R
" " 98 H "
" " 201 H "
" " 191 H "
" " 55 "
Look out for last spot
2 mm Uranium
~~2nd Talk~~ ~~[illegible]~~ "

Dec 12 1903

/

Experiments to discover new rays, also to ascertain sources of Radium, photography 48 hole slides,

Slide. 253.
2 grammes of Sodium Borate 2 grms Uran Sulphate
2nd Row 6th

Slide: 160
Uran Sulfate

Slide 158
2 grms Zinc Iodide 2 grms URANIC Sulfate
3rd row

2nd Holding Confirms Tin Chloride
no Uranium on slide
also Confirmed by Washington book
300/5 Gram Tin Chloride —

Slide 114
2 grms Copper Phosphate 2 grms URANIC sulfate
very intense

Slide 223
Calcium Oxide S S S !

Slide 108
2 grms CHLORIDE of TIN S S S !
ray only comes through Celluloid strong
weak through Mica —

Slide 232
Sodium URANIC — very strong.

Slide 254
2 grms ANTIMONY ARSENATE + 2 mil Calcium Fluoride
Mica show more Transparent than Celluloid
See next page Probably Mistake on plate
~~Uranium 2 grms Sodium~~ 30 mil Uran Sulfate

Bulled up

taken 2nd time (black paper)
209448 - Ceric hydrate - looks yellow
& looks on Uranium sheet, try Ceric by
alone -

176
2 grms Lithium Sulfate + 2 grms URANIC sulfate.
2nd row No 6 -

234 on slide - 233 on book & box
CERIC HYDRATE.. Correct the mistake.

231 -
GALLATE + AMMONIA.
Top 1st = May be mistaken -

Slide 254 on celluloid side, although unmarked
Top or Micro side, Every hole is photographed
most of them strongly. This slide should be
rephotographed as its very strange every hole
comes out - some dark all over

219-

Top- Every hole photographed- think 1st hole top row is a black spot. — The first holes from top in 2 & 4th rows are rather dark —

233

2nd Hole on 2nd top row is rather dark, other nearly as good - left hand side shows more ring spots than right hand

234

No spots - phenom - plate dark all over

219

Bottom - Every hole shows left hand end strongest

225

1st hole bottom ring hole, strongest 1 2 4 3 top row next No 2 hole bottom row white center an faint ring longer than brown ring. Nos in bottom plate. 75% of holes (ring) photgd -

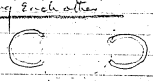
√

253 Top —

This was on p. 1st — Nothing peculiar except the black hole described under 253 page 1 —
Some ring holes on left, Top —

220 Top —

Thermo — 7th hole top — bleaches, extends to right & left so that ½ of ring photo cut off hole
6th hole 8 forming 2 inch other



on 3rd row holes 4 + 5 look as if center photo + rings did not repho the plate, nearly every hole ring photo) — shrinkage! to left

260 Top

Nothing peculiar about it's ringholes shows poorly.
Those t. left obliquely.

160 – Top

described on page 1 – nothing peculiar
ring spots strongest colonies length top row –
160 – Bot only high & low transport, no rings –

159 Bot

No spots – nothing peculiar –

159 Top –

no rings – nothing peculiar –

258 Bot -

Nearly all rung holes, nothing peculiar -

258 Top -

Nearly every rung hole shows faint notching peculiar -

260 - Bottom

Every rung hole strong throw to left boat,

166 Top –

Every ring shown shows except No 7 on the 4th row – this & [illegible] apparently & the ones are ring 50% larger than grey ring – & No 2 on 6th row looks small without ring, maybe a black spot, – spots to left slightly,

267 Top –

No rings –

158 = Bottom See page 1 Urn

166 – Bott.

Nearly all ring spots

267 Bot

No Ring holes

214 Bot

Nearly all ring holes string to the left.

214 Top

Nearly every ring hole - mostly very strong
some extra strong 1st on 1st row ~~[illegible]~~
first on 2nd row - 1st on 4th row 1st on
5th row 4th + 6th on 5th row —
There was a bleacher - no ring In a row
of strong rings there was No 7 on the 1st row
+ No 1 on 6th row - No 9 on 1st ohow
faint indication of a bleach spot.

231 Top — looks like bot as holes are small — of top. No 1 on 1st row very skinny ring — we only all rings shown except No 8 on 1st row which is a bleacher —

221 Bottom

Every ring hole out alcon as usually skinny strings over to left.

165 Bot

No rings — (faggs) —

114 Top

Only 2 or rings to left, (faggs) or clerk at left —

226 Bat.
Nearly every hole cut
1st and 2nd row bleached ditto 3rd
on 4th row — stringest rings to left.

226 Top.
Nearly every hole. 4th row No 3
a bleached + string to left.

221
Every ring shown — black spot in
Centre of 18th hole on 3rd row —
Stringest rings to left, This plate
has many oblong rings —

231 Bot

Badly fogged – 50% rings shown
No 1 on 6th row strong –

114 – Bot. See p. 2 Urau –

No 3 on 1st row – strong ring –
No 7 on 6th row bleached cuts
off 1/4 No 8 ring –
Strongish rings to left.

165 Top

1st on 1st rather may be a black
spot = Rings on abt 1/2
strong at left end –

223 Bat
Nearly all rings - Ilions to left using strong -

233 Bat
3rd Row No 3. Blendheim big ring - 50% rings strong to left = 1 2 3 on 4th row strongest

176 Bat See page 3 Uran -
Notice spot in ring 4. but it showed up poor on developing -
No 3 on 4th Row may be a block spot strongest to left
176 ~~Bat~~ Top - No 6 on 2nd row Uran doubt show much better than No 4 on 2nd row or No 2 on 3rd row - No 1 on 6th is block thing doubt show so on develop

220 Bat

Nearly all rings show strong
Illow to left strongest No 1 low
5 Illow + No 2 on 6th row
Strong No 7 on 1st row. Bleach

225 Top

Nearly all rings – 1st row No 1
& 4th row No 8 strongest.
1st row No 8 Bleacher.
3rd row No 2 bleacher with big halo
dotts No 1 on 5th row
also No 2 + 5 on 6th row – all bleach

232 See front page Illow

Illow Spot No 6 on 5th row –
Nearly all rings show No 6 on 4th
row opposite black spot Bleacher
rings slanted to left –
black spot in ring No 2 on 1st row
the whole ring is quite dark
232 Bat No 6 on 4th is also bleacher –
2nd on 1st row is darkest but now black spot

Plate 128
Shows 6 lbs. taken again. Curious spots on it, all the same shape

158 - See 1 page Uran
Nerings Uranic only spot,

108 3rd spot See 2nd page Chl Tin
Spot is 3rd spot on 3rd row
½ full rings strongest to left
1 & 2nd row 6th row strongest,
108 Top - 3rd spot on 3rd row
dots show up so well on this side.
8th rings on 3 & 4th row fourth
strong also 1st on 3rd & 4th —
2 grm Tin Chloride fuse

probably Sb Arsenic + 50% Uran. Sulph.

223 Top See 2nd page Ca Oxide
5 on 4th row is the dark spot
but real hay work nearly every
ring shows 1st on 1st + 2nd
row 8th on 5th + 6th row
3 + 5 on 6th row strongest.
No 1 on 2nd row + 8 on 6th row
are dark all over + may be spots

254 May be mistake here
See 2nd page Sb Arsenic + Cuff
This is good dark spot, its marked
bottom but from looks of spots it
is Top. If so then spot is No 7 on
4th row — If not it No 7 on 3rd row
plate shows nearly every spot,
slanting to left.

Replate

253 See page 1 Uran
Bottom — No 6 on 2nd row 6 Cracks spot
Nearly every ~~spot~~ ring shows —

53 slide —
2nd taking blank paper
4813 Thoria Cy + Selenium Cy
4804 " + Ag Cy
4679 Cy Zirconia + Cy Uranium
4746 Cy Rubidium + Thorium Cyl
4806 Thoria + Lead Cyanide
4694 Thoria + Zirconia + Thoria Cy —

Plate marked 53
Blank spot 1.04 on 2nd row —

128 bat
Plate shared 6a taken again
peculiar rings + spots the
1st lot —

107 bat
7th + 8th on 5th row has dark
Centers + white rings — faint —
6 7 4 8 1st 1/20 strong rings —
plate shared the duplicated

126 —
So poorly taken Cant tell anything
about it

118 = very. Coffee in it —

121 = Top
Plate too dark – Thank it should be
taken over again – rings very dark

124 – Top
Nothing special — bottom very
Curious. No 2 on 5th row white round
Opal with dark at Center, better
retake —

117 –
Nearly all rings brown nothing special
~~[illegible]~~

122 – bot –
Top row – No 2 ~~[illegible]~~ 4 5 ~~[illegible]~~ seems to be
black all over – 2 first are No 2 & 4

225 Top & Bot.
Nothing indicable —

123 Bot.
May be black spot on 2nd row 4 —
very faint ill defined. Might indicate plants
Top — So dark at one end that it could possibly be due to something retarded

234 — Bot see 3rd p — Carrie hyd.
No 4 on 2nd row — very black
Spot — 234 Top — 4th on 2nd very black

117 Top —
4th row — No 6 + 7 bleaching with halo ring No 4 bleaching on 2nd row with halo — 4th row

216 Bot.
Nothing indicable —

118 – Top –
all rings – nothing noticeable –

121 bat
all rings – nothing noticeable –

126 bat
Nothing noticeable –

216
8 on 2nd row 4 8 on 4th row white
bleaches, no halo
1/101 on 1st row pretty dark all over

107
So badly washed Can't tell anything
about it –

15 Dec 1903 22

Just finished developing 1 day slides –

159 – shows Black spot only see it on Celluloid side –

172 Celluloid side 1 faint + 1 somewhat stronger – (Black)

112 2 or 3 Black spots thinks Celluloid only

40 – Think there are 2 Black spots

58 Big black spot + 1 weak, strong on bottom or Celluloid but rather weak on Mica side –

236 – Big black spot. } celluloid
1 small "
probably 1 more –
one or 2 shown in Mica side – think

2nd take

21135 Uranium acetate

21111 – " Bromide

21132 " Sulphate

21115 – Chrom Sesquichloride

21112 – Nickel Bromide

Gross gone

" " = called up

236 Bottom.

5th on 5th row black – 2nd strongest 21115 = Chromium Sesquichloride, SRO.
21116 is probably at end of this row. This is a mistake on GCP. 21114.

4th on 3rd row strongest – 21132 – Uranium Sulphate,

1st on 3rd row 3rd strongest 21135 Uranium acetate,

3rd on 3rd row 4th strongest – 21133 – Bismuth Trichloride S

Probably some of 6th row No 1 very faint.
21111 – Uranium Bromide –

There is no other Uranium Chem on slide –

Nothing – 162 bat ✓

83 – bat ✓
One or 2 rings –

59 bat ✓
One or 2 faint rings

No 40 Top -

3/4 of all spots show - rings - perhaps some may be spots but doubt it.
This slides has phosphates + Barium platinocyanide
Chems mostly fluorescence & this may account for fact that rings on plate obscure most plates with this bottle gave very few spots + box closed for long time. Evidently ~~spots are~~ rings are caused by long lived phosphorescence - as it may be that Radium + X ray fluorescence held thru pho for weeks -

59 Top - ✓

few faint rings -

112 Bottom

30891 - 2 grms Ca Phosphate 2 grms Uran Sulphate
30903 " Ni Phos 2 " "
30915 " Fe Phos 2 " "
30885 " Hg Phos 2 " "
30855 " Na Phos 2 " "

40 Bot - ✓

1st or 3rd row - Borohydrofluoride double UCO_3
3888 -

217 Bat ✓
few faint rings –

109 Top ✓
Nothing

236 Top –
about same as bottom, See bottom, 236 –

217 Top ✓
Nothing

162 Top ✓
Nothing

138 Top
May be one ~~[illegible]~~
~~Nothing~~ NO Pon 1st row

This slide is evidently wrong

6q Bat

1055 Salicylate Na
1054 Iodoly
1116 X Sodium Creosotinate. S

3rd Lat – Dec 18 1903 27

145 Top –
Nothing. no rings

6q Bat

6th row 1st blackspot, 2nd ditto
3rd ditto faint, 4 ditto, stronger
5 6 7 4 8 all black spots
but weaker but unmistakeable.
No 7 4 8 on 5th row – black
but weak – No 5 on 3rd row
blackspot, This is a daisy

1053 Nit Ag
1051 Lead Oxalate Johnson S
1050 Dry Sleanate aluminum
1048 Cu Palmitate.
1047 Cd "
1046 Mg Tartrate
1045 Ferri et ammonium
1044 Magnesium Palmitate

2nd taking with black spot
Nothing

Nothing 45 top

191 - Top

Black spot, No 3 on 1st row
35 348 = 2 gr Na Tung + 1 mlg Cu Phos

25 Bat.

Strong reaction — No 8 on 3rd, 4th, 5th & 6 rows bleached —

149 Bat.

No 3 & 4 on 2nd row may be black spots, halo of black about are —

33240 2 gms KI + 25 mg BaFl —
33240 2 gms KI + 9 mg BaFl.

33 Top

Blackspot, No 6 Bottom row

7702 Monochlaetic + Na_2Co_3 + Ur. Na

45 bott

No 2 on 5th row - black faint

4791 Granule Thorium + Cy Ammonium

69 Top

6th row 1st weak 2nd strong
4th strong 5th little weak –
6th strong ▽ +8 weak all
black – ▽ +8 on 5th row
strong · 1 of on 4th row
strong – all spots not sharp –

This sticks all balled up as the spots are all yellow + look like Uranium –

5 Top

4 on 5th row very faint & black
5 on 5th strong.
4 on 4th row strong 5 on 4th
row stronger - 7 on 3rd row strong
I think that 7 on 3rd row is a black
spot very faint dotted 7 on 4th
row - There may be other weaker
ones -

7th in 3rd row - Uranium Oxal + Ur Oxalate

7th in 4th row Sulf Ur + Cobalt,

5 Bot.

No 4 on 5th row weak: No 5 on 5th row strong — No 4 on 4th row fairly strong No 5 on 4th row stronger No 5 on 3rd row pretty strong

No 8 on 6th row. bleached.
ditto 8 on 5th row.

6439 - weak. Sulphate Ammon + Tin
6440 strong " " + Zinc
6425 fairly strong " " + Calcium
6423 stronger " " + ammonia
6433 pretty strong " + Lead
6522 bleached Ammon Sulph + Na_2SO_4
6445 " chl Ammon + Barium —

137 Top
plaster too dark to see anything

136 Bot
Nothing —

88 Bot

Nozpots, 1st on 6th row very darkrung
May be a spot.

2567 v Acid Sulphuric + $UO_2(NO_3)_3$

249 Bot —

No 6 on 3rd row good blackspot,
plate full very strong rings —

37033 2gr KBrite + 2gr Uranic Sulphate

33 Bat

X06 on 6th row good black spot
see Top

87 Top

X07 on 3rd row alternate black spot
very strong rings on the plate
2543 X Acid Insoluble + Not Uranium

21 Top -

No 1 on 4th row may be a spot.
3 & 4 on 3rd may be spots.
No 3 on 4th may be one, & No 2 on 5th
but all doubtful — perhaps bad plate
will settle it —

5510 Boro-tungstate Ba + Carb of K + Ba
5463 Phos a + Of Hg + Carb Tin
5461 Phos a Hgo. + Carb Cd
5508 Boro tungstate a + Carb K + Nitl y
5501 " + Carb of Bismuth

237 Top

No 8 on 1st row - very black spot,
Looks as if 3rd & 4th on 2nd row & 2 & 3
in 3rd row were faint black spots -

21192 Uranium Sulfate.
21189 Silver Sulfate
21188 Mn "
21182 Hg Iodide
21181 Cd fluoride -

Pallets No up 2188
marked 21188 –

237 bat.

8 on 1st row good black spot,
4th on 2nd row looks like one –
8th 1st row – 21192 – Uranium Sulfate,
4th 21188 – Mn Sq.

87 bat

No 7 on 3rd row very black spot –
2543 X acid Sulph Gamboie $4K_2CO_3$ + $UrNO_3$
No 3 on 2nd row big spot,
2553 – acid Sulphanilic – $MgCO_3$ –

2nd taken bleaches pair
2 spots weak spot weak
one more spot weak
look at plates

55 Top

39

No 5 on 2nd good black spot
8725 Para Iodudin Sulf + Ur Sulfate

55 Bot

weak black spot No 5 on 2nd

1 2 3 4 4 5 top row bleachers

No 6 on 2nd row is a bleacher
with black mods ? –

8725 – see top plate
8719 Para Iodudin Sulfate + Cd Sulfate
8691 " " Nitrate + Pb Nit
8716 " Sulf Pb Sulf
8744 Xylidin Iodide + CdCl2
8748 " " + CaCl2

Nothing — ~~245 Top~~

104 Bot

No 6 on 1st row - ~~No 7 on~~
2nd row - No 8 ~~on~~ 3rd row
black spots not strong —
~~No 3 on 2nd 3 on 3rd + 1 on 4~~
may be spots plate too dark to see

6 on 1st row	30489	2 gr Ca Cl	2 gr Uran Sulfate
7th "	30472	2 gr Ca Cl	" "
"	30460	2 gr Ca Cl	" "

Doubtful 30535 2 gr di Cl + 25 mg Ca Cl
" 30497 2 gr Hg Cl 3 mg Ur SO4
" 30598 2 gr Ca Cl 1 mg Sulphur ?

Plate (Not here only left half)

140 Bot

all rings -

140 Top

No 5 on 3rd ring 62 a spot

plate too dark

52 bot 42

N08 on 1st blade weak
4767 – Cy of glucinum & Cy chromium

52 top

N05 on 3rd blade weak.
N08 on 1st may be a spot.

Nothing 244 Bot

Nothing 244 Top

Nothing 99 Bot

" Allrings 244 bot

~~104 T/p~~
~~6 on 1st line be spot — plate too dark~~

~~99 T/p~~
~~Nothing — plate too dark~~

~~141 Top~~
~~Nothing no rings —~~

~~24 Bot.~~
~~No 6 on 6th row good black spot. some slow rings —~~
~~5203 — Phosphat + Carb Uranium~~

24 Top

faint black rings No 6 on 6th row
some sling rings

72 Top

some to 6 z cyl rings –
sling rings – 5th row 74 to bleaches
ditto 8 in 2nd row + 8 on 3rd row
bleaches

No O.

Black spot faint 1st on 2nd row
" 8th on 2nd row
" 8 " 3rd row
" 7 on 3rd row sling
4882 No 1 on 4th row very z a spot.

4881 – Cy Phlem & Cy Uranum
4803 Cy Thoria & Cy Uran
4834 Cy Ytrum & Cy Uranum –
4863 – Is in shiz not in book –
4882 Cy Glucinum & Cy Didymum –

X Something wrong stuff in Redbook.
"unintelligible see if got right spot"

32385 with book is
2 gr Sing. Sod & 2 gr Uranyl Sulf
2 gr Sing. Sod & 2 gr Uranyl Sulf

Just Book
2 gr KI Br 2 gr Uranyl Sulf

145 Bat

Contrasce any op at, fine ring plate dark

137 - Bottom.

Black spots No 5 on 6th row
" No 7 on 6th row
both strong no ring on plate
X 32385 - 2 gr Na Phos 25 mg Zinc Cyanide S.S.
32361 2 gr KI + 2 gr Uranic Sulphate.

167 Top

Black spot No 2 on 5th row.
Very ill defined -
34443 = 2 gr Ag Sulfate ~~2 gr Calcium Fluoride~~ 2 gr Uranic Sulfate.

86 Bat

No 2 on 6th row 30 seconds 4546
on 6th row bleaches = 102 on 3rd row
bleaches all ring. very strong No 7 on 4th
row strongest ring

Potaking with 6Ca & elk pap.
6 in 6th Row —
Borax & Cand Urom & Ba

Potaking pap No 11 —

Probably all balled tip

4556 ClCd & ClMn
4519 ClMg & ClMng — } mistake
45211 ClMg & ClPl
~~4555~~
4555 — ClCd & ClZinc
4553 ClCd & ClPSr
4515 ClCa & ClCopper ammonia
4508 ClCa & ClMn
4440 NaCl & CoCl
4439 — NaCl & NiCl
4433 NaCl & MnCl
4507 CaCl & ZnCl
4417 KCl & FeCl
4444 NaCl & BiCl
4396 Nitrate Alum & Nitrate Cerium }

180 Top
No 2 on 2nd row very strong rings

238 Bot
~~Strong rings No 1 & 2 1st row~~
~~Bleached dull 1 & 2 on 2nd row~~
~~bleachers~~

No 11 Bot.
Black spot. 3rd on 1st row.
" 5 on 1st row
" 7 on 1st row very faint.
" 2 and 3rd on 2nd row
these two have white trade respectly brass ring on other side apparently —
Black spot 2nd on 3rd
" 5 on 3rd
" 1 2 3 4 5 & 6 on 4th row one
apparently spot.
No 6 on 5th row spot.
all spots are quite weak & there are many very strong rings —

8 Bat
apparently all rings —

43 Bat
Every part filled with very shiny rings —
Black spot weak — 1st on 3rd row
7904 phosphorous acid — H_2CO_3 + Zr (OH)
Record 43 Top

167 Bat
full very shiny rings — Na5 on 1st
may be a spot, ~~it has a white halo~~
~~7904 phosphorous acid H_2CO_3 + Zr (OH)~~

72 Bot

Nos 5 on 5th row in my 62 a spot - doubtful

249 Top

Black spot 6th on 3rd row
370 33 = 2 gr K Rorate 2 gr Urunsinfo

141 Bot

only rump

136 Top

nothing

88 Top

Nothing —

151 Top

Nothing

56 Bot.

No 3 on 3rd may be spot, also 5 on 3rd – there are some very strong rings that may be spots.

No 4 Bot

No 6 on 6th row black spot, plate full very black rings some may be spots –

6389 = Amilin Sulfat + Urean Sulfate.

56 Top

full bladerings - No 2 on 4th row may be a lapat, & No 3 on 1st lo

7 Bot

Every ring pkot'd

23 Top

No rings - see 23 Bot -

256 Bot

Apparently all rings

25 Top

4th on 3rd Row may be spat,

149-Top

No spots -

240

2nd on 4th row may be spot
36595 2gr $Bi(NO_3)$ 2gr $UrSO_4$

172 Bot.

5th spot on 2nd row Black spot
34269 - 2gr Cu Iodide + 2gr Uranic Sulfate

168 Top

Nothing no results

53 Top -

8th on 4 or 5th row doubtful

53 Bot.

No 6 on 5th row good black spot
74.5 on 6th row black
No 4 on 6th row black

4679 - Cy Zr + Cy Uranium
4813 Cy Thor + Cy of Selenium
4861 Cy Thallium + Cy Cobalt,
4804 Cy Thor + Ag Cy -

213 - Top
nail

172 Top
possibly 5th spot in 2nd row doubtful

213 Bot
Lots spots -

257 -
possibly 7th spot on top row
& 1st on 6th row - both doubtful

127 Top.
Nailing

Nothing 96 Top

211 or 215 Top

Nothing

215 Top or 211 —

Nothing

62 Top

Nothing

~~100 - Top No 7 on 3rd row black~~
~~No one on 2nd row black~~
~~No 8 on 2nd row black~~

215 Bat

No 3 on 3rd row may be a spot

191 Bat.

No 4 on 1st row spot
Examine again accounting amt No 3 on 1st Row

168 Bat

1st on 1st row bleaches 2nd on 1st row dots
4 on 1st row probably Black spot
No 1 on 2nd row bleaches

240 Bat See Top-

No 2 on 4th row Strong Black spot
No 2 on 5th possibly a spot.

39 Top

Nothing

146 Top-

Plate too dark cant see

175 Top-

Too dark to see anything

23 Bot

1st 1st row block.
1st on 6th row good block
2nd on 6th row fount block
4th on 6th "
3rd on 6th very fount "
1st on 5th row block
1st on 2nd row fount block
1st on 3rd row fount "
1 on 4th row fount "
2nd on 4th row fount "
Thinks there are others - plate darkened
Should be taken again -

257 Top

Too dark to see

64 Top

Too dark to see

256 Top.

Rings no spot -

64 Bot

Every ring plated strong - no spots

2nd Pattern
well

62 Bot
1st on 2nd row Black
7th on 4th row Black
3rd on 1st row probably a spot,
Maybe other spots plate dark
Retake —

~~180 Bot.~~
All rings —

263 Bot
Seems to be all rings - plate dark

147 Top —
Plate dark Cont see

263 Top
Plate dark Cont see

262 Top
6th row 3rd spot strong. Black spot

263 Bot
Plate dark - well

26 Top

Nothing -

36 Bat

All strong rings -

42 Top

Nothing

192 Top -

2nd Row No 4 strong Black spot

35449 - 2 gr Kilos 2 qr Ur 504 -

192 Bat.

2nd Row No 4 very dark ring probably

a spotted ring very conspicuous

Two Blacks peculiar bat

6 Blackbirds 4 walls of the shown

26 Bat.

Lots of Blackbirds

1 2 4 3 4 5 on 6th row Blackbirds

1 4 2 on 2nd row Blackbirds

11 Top

No 3 on 2nd Row Black

No 1 1st row Black with white tab

No 2 on 3rd row Black with white "

There are 8 6 6 yellow spots, but

plate looks dark —

261 ~~Top~~ Bot
1st Row No 4 Strong Cock spot
Thermometer marked [illegible] Rings
Very strong & well covered & plate thick-
37681 2 gr Baffles 2 gr Ur 504

Developing notes 48 Horn

184 H = Very black spot at end on both.

230 SR maybe some spots on Top all rings on bottom

68-SR 5 Black spots on top row & 1 black spot on 2nd row and 7th spot on bottom Corresponding one on 2nd row very black

Think 68 has been arranged for 5

69- investigate —

32 SR only rings

107-SR string rings both top

167H – strong rings may be
spot on bottom –

46 SR all rings – big halo
around end hole both plates

43 SR – Bottom, strong spot
rings yet weak? –

39 SR only rings –

63 SR Top row near end very
black spot with both plates +

183 H – Bottom is only all
Blemishes few rings of Rows
walls of slide black? –

228SR – all rings —

47 SR may be spots on top possibly bottom —

261-H Top seems to be full black spots but they don't show when plate held front red lamp. Bottom plate shows black spot. Outer row near middle.

19 SR only rings —

113 H. Eight black spots on top & show black colour held front red lamp. Don't seem to be corresponding ones on bottom. Latter seems be rings – Phenomenon. Notice that colour gelatin form offrings are recorded on glass just no alternating ? ?

263-H. possibly one spot
but 3rd row moose —

~~5~~ 7 SR Bottom One black
~~spot~~ Blotch & one or 2 blenches
no black spots —

20 SR Nothing

266 H — Extremely strong rings
both plates —

262 — 1st row 3rd from end
good black spot on both
strong on bottom —

134-H Black spot
2nd row on top & bottom, another
on bottom faint —

97 SR – Rings only

76 SR 1st or least row
Corner strong ring but black
all over may be a spot, bottom

77 SR There is a strong black
on top about 2nd or 5th row.
not shown on bottom – There is
two on bottom approximately not
on top plate look at this carefully
one of bottom is faint. rings are
strong –

4 SR Very black ring on
outside row bottom plate.
may be faint spot on top plate

56 SR – 3rd from Edge – 3rd or
4th row Top plate, seems to be
a spot

238 H all rings

No 8 SR May be three on
Top at bottom row of top plate,
& corresp'g rings rather black on
bottom plate 1/8 thick —

180-H Seems to be spot on
Top plate 2nd row with pin hole
in center — all rings on bottom

26 SR Top — about middle row
3rd from end possibly a spot;
Corresp'g very black ring on
bottom — on bottom half
bleachers —

147 H nothing

192 -H 2nd Row 4 or 5 from end Black spot, both plates —

86 SR Top near end 2nd near middle row thick spot. Bottom, lots rings, several good bleachers

146-H. only rings —

36 SR on top near end small white halo. on bottom at another place a halo, but larger,

15 SR All rings - another piece gelatin torn off rings on glass only just as strong S.

81 SR Bottom - Black spot 2nd row middle. apparently same on top but dont show in front of Lamp.

No 11 SR Top seems to be good black but dont show in how held front near Lamp

42 SR Extremely strong rings on bottom - plate moved - all

Day previous
24 Hours

169 H = dots rings all strong on bottom may be a black spot in Corner of Top none on bottom

177 H. Bottom row on bottom plate seems to show one of rings black in middle 3rd from end I think —

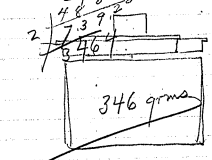
178-H. Strong rings bottom.

171-H good black spot on top + bottom plate. last of 1st row about middle.

264-H. I think they are all rings on top — bottom all rings. possibly there may be a faint black on

188 H only rings
70-H "
185 H "

480
154
92 0
24 0
48 0 0
2 | 7 3 7
346



480

288 | 4460 | 154.
288
1540
1440
100
14

4 | 3.20
15
1600
320
4.800

256-H Strong rings

212 - all rings some strong

102-H Very peculiar plate
2 rings top bottom black as
midnight near middle - awful
black on bottom one over on
side. also on bottom plate near
a corner 2 or 3 black spots
I think - run this down? —

257-H - Bottom in Corner
Black spot thick top
has it & perhaps one other.

256-H. Strong rings Bottom

243-H - Bottom & Top
3rd or 4th Row - good black
Bottom strongest, near middle

213 SR Lots rings -

27-H plenty rings no black
spots apparently -

161-H - Rings -

265-H Bottom One black
spot on 1st or 6th row -
4th from one end Cant see it
on Top -

175-H all rings

34 SR Bottom one Black
Spot. 4th or 3rd row next to
end one, Sure not strong.

96 SR Seems to be faint
Blackspot 2nd and 5th
last hole Top plate,
Same on Bottom plate looking
through plate front light
dark spot but see much
one bottom faint, possibly
only rings —

64 SR Rings —

23 SR Bottom — Black
Spot in one Corner & near it
faint spots of smaller diameter
Main Rule II

174-H Top - at one end
Lowes held plate up before
developing (to saw spot
phosphorescence) it developed
Black - Bottom side
Nothing - Bottom - peculiar
spots at places bleached &
square shows spaces between
holes -

240 H. Bottom - one Black
spot 3rd or 4th row -

168-H - Lots rings but
disappear on further
developing. -

Phenomenon — Notice
when put plate in developer
dent cover a certain
area at once this area
developes white the cover
if kept in much longer —
Natural like on Zi plates
that accordingly dent cover
at once, is it Electrical?

53 — Top one in Corner Bottom
one in Corner & one on
same row further along
bottom one strong one on next
row —

191-H Rump bottom plate

215 SR Bottom – 4 excessively black rings one jet black, all over but disappeared on further developing none seen. through light this is peculiar run it down to get the rings in developing again phosphorescence? guess – no black spots –

145 – Nathan

No-5 Bottom + Tops show three Blackspots about middle 3 rows but in line dots rings strong – apparently six spots on bottom three on top probably six, one on the bottom is very strong

69 – Bottom plate 4 or 5 Black spots & many strong rings. Top plate Black spots in both corners & in other parts of the plate seven spots on the bottom or top row – Two spots on 5th or 2nd one spot on the 3rd or 4th near middle.

No. O – 3 spots together near one Edge 2 other spots in Corner Bottom full of rings – Same Three spots & spots in the Corner

24 – Top strong rings do bot on bot or top may be a black spot

21 — Bot-strong rings. Top faint rings. think big black spot on top very muddy spread covering large area ill defined, Bottom same —

33 — Bottom - Black spot on 1st or 6th row - faint — Lots rings —

52 = Top — Big black spot in Corner also Bottom very strong rings on Bottom. the big black spot strongest in bottom plate

72 = two faint black spots on bottom + some rings on Top

87 – Both plates full rings –
Top plate 3rd or 4th row
2nd from end Very black spot
Bottom plate ditto not so black

237 Top plate – in Corner Very
Black spot fine.
On Bottom – Black spot in Corner
also 3rd or 4th row 2nd from end
Exceedingly black ring – there are
a number of black rings bottom

149 – Rings on bottom

62 – Bottom plate Black
Spot 2nd row on end – Top
few rings

45 = Rings

25 - Rings - on Bottom one large black area double size of a spot.

99 — Bottom one very black ring

244 - Ring

140 "

245 - Bottom - very large halo - one or 2 ~~large~~ strong rings

104 = Three black spots, one Exceedingly black ring on bottom possibly more black spots on top One Black spot, several rings but plate very dark Can't see well - black spots not strong but ring black

137 – ~~two~~ faint spots on Bottom 1st or last row – Nothing on top –

141 – Rings

136 Nothing at all –

88 – Possibly one spot on top few rings Bottom full rings one in Corner may be a spot, one ring very black

55 = Spot on 5th or 2nd row possibly another spot on 1st or 6th row – rings very strong One black spot in Top Bottom spot quite black Top spot faintly black –

249 – Much Black spot on Top – good black spot on bottom 3rd or 4th row – full rings all –

113 Top + Bat Disinfectant Part

No 2 on 1st row olive 30927
2 gr Bismuth Phos + 2 gr Uranium Sulfate
8th on 1st row — 30879 —
2 gr Pb Phos + 2 gr Uran Sulfate
7th on 3rd Row ✓ 30909
2 gr Ag Phos 2 grms Uran "
30867 4th on 4th row.
2 gr Lithium Phos 2 gr Uran Sulfate
5 6 + 7th on 4th row weak spots
30860 Uran —
30907 "
30945 2 gr Ca Phos 2 gr Ca CO3 S
Spot very weak & doubtful —
30873 Uran
30861 Uran
30921 Uran
30949 Uran —

243 Bot, + Top

5th on the 4th row along spot
36769 - Uranium - 1 spot

256 Top

Rings -

~~[illegible]~~ 58 Bot + Top -

Nothing
6th on 3rd row along black spot
3003 — Oxalica + $CdCO_3$ + $UranO_3$

169 - Top

Nothing

227 Bot + Top

Nothing

39 Bot.

Only Rings

No 2 Bot

All rings - but most of them dark Centers.

65 Bot

Nothing

97 Top -

2nd on 4th Row Black
4642 — Uranium -

91 Bot

All rings

139 Top

Nothing

241

4th on 1st row very strong black.
36649 — Uran Sulfate, Pb Cy both 2 gr.

150 Top
Nothing

185 Bot.
Only ramp

178 Top
Nothing

154 Top
Nothing

154 Bot,
2nd on 4th row is blackening that blends out string magnetite or spot.

22 Top –
All Ramp – not will work

109 Bot.
No 2 on 2nd Row strong
30055 Uran Sat finite.

This is a Bull Chesloff's white
May be arsenic acid - Run down

2nd taking blackpropp
2300. Arsenic & Uranium
2394 = Molybd Uran

84 Bot.
No 1 on 2nd block
No 8 on 5th Extra Black - best yet.
2300 Metallic arsenic - ss.
2394 Chl Uranium

174 Bot
4 5 & 6th Row Blanches

34 Bot
Rings -

175 Bot,
Every hole a ring Contains any if any are spots

34 Top -
Nothing

74 Top
Nothing

150 Bot
Nothing

2nd Taking
2 gr CuBr 2 gr Brown Sugar
2 gr BiK + 2

241 Bot
Strong blackspot 7th on 1st Row
There are many ring which are ringy but
dark in Center also, 36649 –
See Top –.

84 Top
1st on 2nd Row 8th on 5th Row Blackspots
See Bot –

134 Top –
2nd on 2nd Row Blackspot good.
4th on 5th Row " gd dif. ring
34126 2 gms NaChromate pd 48 hrs to 2 gms Zinc Cyanide
34115 – 1 gms 5 oz Mellow Rend. 3 oz pd 90 Sh only Phenol's Blade –

82 Bot.
No 7 on 4th row blackspot –
1854 BaCy + ChPlatinum –

No 7 on 2nd Very clear white halo + ½ cent. 1869
black – ditto 7 on 3rd not so clear –
think No 3 on 2nd row is a spot,
1869 – 7 on 2nd SrCy + HgCl
1850 – 7 on 3rd BaCy + HgCl
1839 – 3 on 2nd – BaCy + MnCl –

Another balled up

63 Top –

7 on 6th Row Black spot good
5 on 5th " faint,
5 on 6th " faint –

990 – Oxalate Barium } ? ? yellow phosphorescence,
2994 – Bates Rod } ? ? white this –
826 – Oxalic acid + $ZnCO_3$ + UO_3 –

63 Bot

7th on 6th row – Black spot strong,
5th on 5 Rows probably split,
5 on 6th "
See Top.

151 Top –

~~3rd on 4th Row~~ Nothing

132 Bot

3rd on 4th Row – many bz others 142 on 6th,
31977 2 gr Na Br 2 gr Urea Sulphate,
31858 2 gr BiCP 1 mlg Ca Thos } ?
31878 " 9 " Ca Borate } ?

2nd Color

1797 — Cy Mn + Ur Cl

4603 } Glint — Borrec a Carb K + Uranium

4623 — Borrec a Carb Nat Bismuth Clock behind Vip

4660 weak — " Uranium + Fe

4658 weak — " Uranium + Ni

Thumb Nail is bulbed

4603 which is Uranium

Nat Bismuth Carb

Lustrous Cook

7th on 5th 4623 Borrec a + Carb Nat Bismuth

1st on 3rd 1797 My Cy + Uranium Cl

4th 2 1809 Al Cy + Mn Cl

6th on 5th 4295 Nat K + Nat Ca

89

112 Top

4th Row — No 2 faint

4 Row No 3 good

Many tiny white

30855 — 2 gr Na Phos + 2 gr Uran Sulfate

30885 — 2 gr Hg Phos 2 gr Uran Sulfate

83 Top

Nothing —

134 Top + Bat

Thumb Nailing

16 Bot + Top

~~Spots~~ — Rump —

139 Bot

7th on 2nd Bismuthinite

allotriomorphic Rump —

77 Bot

7th on 5th row strong Black

1 on 3rd " "

4 on 2nd Weak Black

6th on 5th shows upper Grossular image or white Quartz

77 Top
7 on 5th slimy spot.
1st on 3rd

138 Bot.
5th on 2nd Row in sale - Amp to see
32157 2gr Sr Br + 2gr Uran Sulfate.

230 Bot
all slimy Ramp —

228 Bot + Top
all slimy ramp —

79 Bot
Ramp —

47 Bot, + Top —
6th on 5th Row along —
Plate full very slimy Ramp —
6145 Phospho Tungstic a + Uran Cl2

2585 - is not marked) Q
& none other in book

Nothing 183 Top

246 - Top - + Bot -
8th on 2nd Row -
36871 2 gr Li Borate & 2 gr Uran Sulf -

186 Bot
Very strong Phosphs -

197 Bot
Extra Strong Phosphs - Eosin-yellow shows

85 Bot,
1st on 2nd Row may be spot
6th on 2nd "
2592 a Hydrofluoric fluorine a + U (NH4) v filter
? 2585 Q Hydrofluosilic a + Cu Co3 filtrate?

All bailed up - wrapped with 69 -

Milling - 110 Top + Bot. - may be some spots. -

Rings 156 Top -

Rings 224 Top

Rings 15 Bot

Rings 68 - Bot

All bailed up

No 1, 1st Row
No 2 "
No 3 "
No 4 "
No 5 "
No 6 "
No 1 on 2nd Row -

Rings, 81 Top

Rings 79 Top

183 Bot,
Thin plate of new Blenchers on
wood between inches

119 Bot
All strong rings

74 Top
Rings –
1 3rd & 5th on 1st Row Blenchers

119 Top
Very strong rings –

193 Top
No 4 on 6th Row – blackspot

35347 2 gr $NaWO_3$ + 2 gm Urau Sulf

Rolled up —

Ruings — 124 Top

See 68 Bat — 68 Top

Ruings 184 Bat

184 Top ?

No 8 on 3rd Row very black ~~spot~~
Not shown at all on Gallium plate —
35737 2 gr Nacl Sesquit + 2 gr Urea Sulfate

Ruings — 15 Top

Ruings — 230 Top

81 Bat.

4th on 5th row Block -
maybe other -
2231 - Uran Oxyfluoride

246 - Bat
8th on 2nd Row

89 Bat.
Some Bleaches, clear,

125 Bat
fully all rings

80 Top
Rings

89 Top
Rings

135 Bot

8th on 3rd Strong black
2nd on 4th row " " "
3rd on 4th " "

8th - 32265 2 gr ZnBr & 2 gr Uranyl Sul
2nd - 32289 " BaBr " "
32313 " NaIodide " "

229 Bot

No 2 on 6th Row - doubtful -

20774 - physostig min Hydrobromic

115 Bot.

all rump -

133 Top

No 2 on 3rd Row - doubtful -
32014 2 gr KBr & 1 mily Ca Fluoride

2nd lakey blended of Sulphonic & Urea Ammonia
7505 – Sulphonic pseudo Cumol "
7605 –

(guess this using Ring & indend spots)

133 Bot

Ring –

115 Top

Possibly some spots Cant say

73 Bot

Ring –

28 Bot

No 1 on 1st row strong – Nothing on Top –
No 2 " 2 on 4th " – " weak smaller dia
" 7 " – sulphonic pseudo cumol + NaOH –

Spots on this plate are extremely strong.

7504 – Sulphonic a + Zr (OH)
7397 Phtalic + Zn CO_3
7505 – Sulphonic a + Urea (OH Na)
OK

Doubtful –

170 Top

Rings

120 Bot.

3rd on 4th Row –

31173 – 2 gr BaCl 2 gr Uran Sulfate

195 Top

Nothing

206 Top

Very Strong Rings –

204 Top

5th on 3rd Row blackspot

36049 ~~4~~

2 gr CaNit 2 gr Uran Sul

247 Top

Rings

60 Top

Nothing

120 Top -

3rd on 4th Row - See Bat,

206 Bat

Allstrong Rmp -

49 Top

Plate too dark to see anything
5th on 4th very large spot vs. very weak
3rd on 5th - " " "

12 Top + Bot

Rmp -

98 Bat.

2nd Row -

No 1 30176 2 gr. CdCl. 1 mily agcl.
No 2 30202 2 gr. TlnCl. 1 " agcl.
No 3 30204 " 9 mily agcl.
No 6 - 30206 " 50 mily agcl.

2nd Row Nothing

98 Top

Plate too dark see anything

229 Top –
Too dark see nothing

153 Bot
Nothing

163 Bot
Nothing

190 Bot
Nothing

44 Bot
Rings – too dark to see

54 Bot
Rings too dark to see well

25 Bot
Rings too dark to see

54 Top
Rings –

37 Top
Rings

Boiled up & thinned
as part is white
probably S went off & left in
solution —

25 Top

Ring

44 Top

Ring

28 Top

7th on 1st Row - black
2nd on 4th Row " faint. 7605 —
Sulphopsedowcumolacid + Ultra Ott Na

198 Top

Ring

142 Bat

No. 1 on 6th row - pebly & pat
32643 2 gr Zn Phosphat & 12 gr Sulph.

80 Bat

Ring —

224 Bat

Zylva & Swing ring "

2nd take (Black powder, Cu Cl + 2 UranSO4) 30430 – All runs into lower of Sat eight Sr. increase spot.

Very Sensitive Instrument

211 Bot
All rings – Xtra Strong

197 Top
Strong rings –

125 Top
Rings

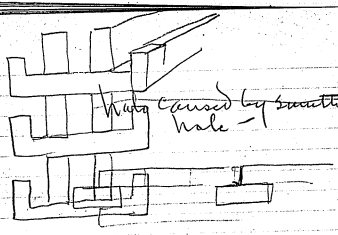
198 Bot
Rings –

207 Top
4 on 6th Row – spot, 36217 (PbCr + UranSO4)

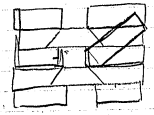
207 Bot.
4 on 6th row spot.

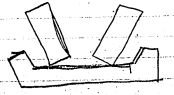
90 Bot
Rings

103 Bot.
4 on 5th row – 30466 2gr PbCl 2gr USO4
8 on 1st " 30478 2gr PbCl 2gr "
2 on 2nd row 30435 2gr PbCl 5 amp USO4
probably 2 + 3 on 6th row.
5 } 30477 2gr PbCl 5 amp USO4
3 } 30430 2 CuCl + 2gr USO4



Wing caused by exactly hole -





170 Bot 2gr $PbNO_3$ 2gr CaCl.
possibly 7 on on 2nd 34975.
5 on 4th halo begining

73 Top
plate too dark

204 Bot
5 on 3rd black strong
36049 2gr CaNit + 2gr $UrSO_4$ -

135 Top -
8 on 3rd row strong 32265 .2gr ZnBr 2gr USO_4
2 on 3rd pale -
32324 .2gr NaI + 50 mg H pcl -

49 Bot
plate too dark

147 Bot
Strong rings - too dark to see

60 Bot.
6 on 2nd Row spot, 3107
~~photo~~ + $BaCO_3$ + WO_3 -

190 Top
plate too black

202 Top
plate too dark —
Bot-rings —

19 Bot.
Rings —

93 Bot
Rings — too dark to see

95 Top
1 on 2nd row pale
89865 M- Xylin oxide + U Oxalate

199 Top
Strong Rings —

13 Bot
4 on 4th row bza spot

78 Top
Too black to see

Xylidine + U Oxalate
4 on 2nd } 94 Top 8963
2 on 5th } 9001 Contaminated Cerite Mn + Pb
plate very dark.

78 But.

4 on 1st row
5 on "
6 " "
7 " "
8 " "
4 on 2nd row
6 "
7 "
8 "
6 on 3rd

} very faint.

180 Top
Too black to see

13 Top
Too black to see

235 But
Ruy —

19 Top
too dark to see

37 But
Too dark to see

2nd Tiny Nothing

Ch Tin least (race)
piece Ni ore forming dark
Check –

94 Bot.
4 on 2nd pelly

Ruy 131 Bot.

124 Bot.
Think Lat spots 2 alike –

74 Bot.
~~3~~ on 1st row mybe spot + halo.
1 + 5 on 3rd row blanches

Ruy 201 Top
Ruy 201 Bot

380 Rafn Top
Shows lat blanches
plate too dark:
380 Rafn Bot.

~~Pro 8 on 6th Row good spot,~~
~~4 on 4th row –~~
~~1 on 1st pennacy~~

Using plate, see what chems are

Prbly other spots
on 101

Using plate
See what chems are

198 Top
3rd on 3rd row
ditto 198 Bot
35647 .2g. $BaNO_3$ 2g. USO_4

205 Top
Rings

101 Top
4 on 5th prbly
101 Bot 1
1 on 1st row
4 on 5th row
2 on 6th row
205 13 of.
16 on 4th row
5 5 6 + 7 on 5th row
1 5 6 7 + 8 on 6th row Very white
halo Reg sig + dark center — 5 5

116 Top
Rings

Looks yellow 5

2nd taking 3 black paper 5.5

3959 - Hypophosphate + Bi Cub 1.1

Wrong 3 guess -

plate being used
9 st Chem -

What are these?

38 Top Hypophosph + Bi Co3

5 on 1st - 3959

4 on 3rd poly 4 other poly

3872 Mica + SnO 5

116 Bat

Very strong rings

106 Bat.

1st on 3rd strong black spot

5 on 3rd poly

106 Top plate too black

10 Bat

Plate very dark thumb thin spots

10 Top

ditto

93 Top

Rings -

38 Bat,
Show white halo square —
5 on 1st poly spot,

199 Bat
All very strong rings —

Test bat

253-H Top + B both
plates very dark.

61 SR Top
3rd on 4th row strong spot ring like
3214 Pb a + $PbCO_3$ + PbO.

61 Bat
All rings —

209 — Top
4 on 1st Row extremely black ring
on edges with a black section of ring
on 5th of 1st Row — Bottom plate
Exactly corresponds.

Kirchl

36469 — 2 gr. Cu Arsenate & 2 gr. Potassium S S
Water wood omitted on
both sides — only holes thru wax on plate
Phenomenon —

Natural Cell book

Phenomenon

Little books marked 216.

This is strange as there is no stuff in hole, see plate again —

14 Bot + Top —

3 on 2nd Row }
6 on 4th " } may be opal.
Bot doubtful except 3rd on 4th which is likely
4458 4374 $Sr(NO_3)_2$ $Bi(NO_3)_3$
4373 $CaNO_3$ $AgNO_3$ —

18 Top + Bot

3rd on 2nd Row both places but the Edge of ring intense black on both
This is a Phenomenon
70 75 - Borehole of Chromic w $NH_4)_2CO_3$ + Pb @ 1/2 —

218 Bot

4th on 3rd Row Open hole. 20124 Cu + Alk of Nitrate.
7 on 1st Row 20137 Lillian formate.
Can notice other
Bottom 218
4 on 3rd Strong.

35 Top + Bot

Nothing

75

1st Row Six Bleachers

~~Slide under also marked~~
239 - which book is marked 238

~~not so~~ —

200 Top + Bot
Both plates full strong rings.
Orange.
as new way div in dark lohnw very few rings

203 Top
3 on 4th Row

203 Bot
3 on 4th Row —
35971 2 gr K IVO3 + 2 gr Uran SO4 —

238 Top
2 on 3rd Row 21230 7 o Protochloride ?
7 on 4th Row Both Strong 21217

238 Bot
Duplicated — Uranium Acetate,

29 - Top
7 on 3rd Row — Ditto Bot plate
7530 Methylsulfonic ac + U (OH) Na -

Not in bat.

51-Top+B

Nothing

81 Top

7 on 1st

81 Bat.

7 on 1st not so good.

382 Rafn Top

4 on 2nd Row 6 Blackspot good

133-Magnetic Grand Isle Somerset Vermont,

382 Bat.

Nothing-

381 Rafn

6 on 5th Row probably

59-Quartz & pyrite Bangle mine N Carolina.

30 Top

7 on 4th Row 4123 Pb NO_3 & $Ur NO_3$

2 on 5th Row 4336 $Na NO_3$ $Ur NO_3$

30 Bat.

data + unadulterated

6 on 5th Row 4301 $Na NO_3$ $Sr NO_3$

Developed plates Bot & Top
show only rings no spots
Where is top,

248 – B + Top
Nothing

210 – Bot.
5 on 3rd Row 36478 2 gr Cu Chrom 9 mlg KCy
6 " 36457 2 gr Cu Chrom + 2 gr Ba Pt
7 " 36463 2 gr Cu Chrom 2 gr Sr Pt
1 4th Row 36474 2 gr Cu Chrom 50 mg Zn Cy
2 " 36481 2 gr Cu Chrom 2 gr KCy

252 Top
2 on 5th Row black spot.
252 Bottom
Same — 37183 2 gr Ca Bor 2 gr Ur SOy

67 T + B
Nothing

208 Top
7 on 1st Row good
208 Bot
Same — 36319 – 2 gr Pb Pt + 2 gr Ur SOy

17 B+Top

Nothing

50 B+Top

Nothing

194 Top

4 on 5th Row

194 Bot

Same 35491 - 2gr Na Mo + 2gr Ur SO4

250 T+B

Nothing

155 Top+Bot

6 on 3rd Row } Very strong
6 on 4th Row }
no other rings

156 T+B

157 "

Nothing

33393 Li I + Ur SO4

33471 Ba I + "

S S

2 gr Cadmium Iodide + 2 grs Sulphur
is this OK S S

Color is right – What does it mean
No strong Urea Stale on stronger
is 24 milg – Maybe action
of the free iodine –

Just taking Sulfur 2 gr off
CdI 2 gr

No 36 ov

Looking up in book find it
is 33567 2 gr CdI + 2 gr Urea Sulfur
Above is mistake of the old boys

152 – Top
7 on 5th Row. 33567
152 Bot
Same but stronger –

111 Top
4 on 5th row 36629 2 gr ZnCl + 3 milg Sulf
6 on 3rd row doubtful 30677
Bot 4 on 5th row – doubtful
2 gr MnCl + 3 milg KCy –

41 – Top
3 on 1st Row – 3773 Sulphosphate of Urea
Bot. 2 on 3rd Row: 3842 Melonic acid Urea CO_3
3 on first row
2 on 6th Row 3180 Phos of $MnCO_3$ + $PbCO_3$ –

2nd Taking blackpaper

2 of Acid Hydrofluoric + Na_2CO_3 + $PbCO_3$ 55 strong

" " + $Al_2(OH)$ + Urea Ammonia.

Thus Fluorescin Rodamin Jetty

~~Got Chl of Cu Chl. Acetate Ether~~

Developed plate show good spot

other spots correspond lid crack

116

66 Top

6 on 2nd row 2732 Hydrofluoric + Zn + Mg CO_3

2 on 5th row 2736 " + Zn + Co CO_3

8 on 1st row 2706 Hydrofluoric + NH4 + HgO.

Bat. 8 on 1st Row.

127 Top

Original.

2 on 2nd row 31601 2gr MnCl + 9mlg Li Borate

5 on 3rd " 31573 2gr MnCl, 25mlg Ca Phos.

5 on 2nd " 31600 " " + 1mlg Li Borate

2345647 on 3rd row

234567 on 4th row

34567 on 5th row

Look in spectrum

7 on 6th row 31614 2gr MnCl + 9mlg ZnCl

2 on 2nd row always spt.

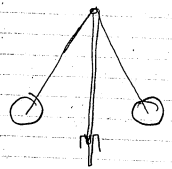
Bottom ~~7 on 6th row~~ all above doubtful

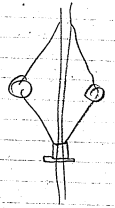
The following were taken 2nd time, without Rump - using black paper & results recorded —

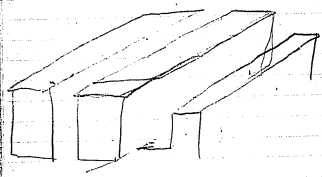
77	55	100
142	53	142
18	232	98
23	103	201
382 Rufa	82	191
238	66	55
98	11 —	23
201		18
191		
38		
84		
236		
204		
28		
134		

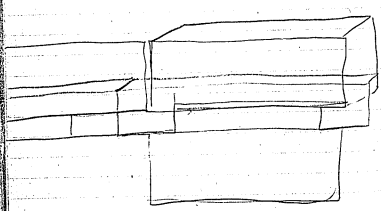
Had nothing on after 40 hrs.

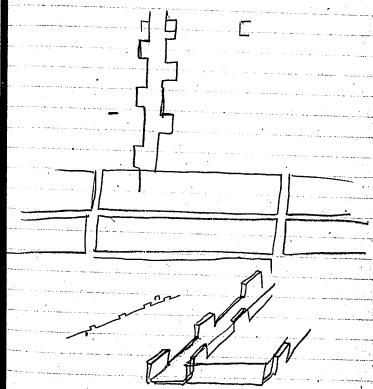
~~Rufa [illegible] 3 spots on [illegible]~~

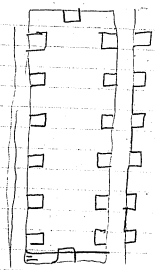


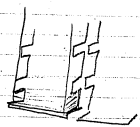












in green 68% Ni -

$Ni(OH)_2$

59
34
93 | 590 (63.4
558
320
279
41

$Ni(OH)_4$ - 4

256
60
1536

59
3

256
634
1024
768
1536
762.3

1000
630
370

·298 per amph

$Ni(OH)_2$

256.
7

1 gram $Ni(OH)_2$ to 370 grms OH.
" $Ni(OH)_3$ to 180 "
$Ni(OH)_4$ 740 "

from $Ni(OH)_2$ to $Ni(OH)_4$ - gives 370 gOH, gives 1.24 amphours

if from $Ni(OH)_2$ to $Ni(OH)_3$ - 1/2 that or ·62 amphours

298 | 370 (1.24
298
7260
5960
1292
1192

if from $Ni(OH)_3$ to $Ni(OH)_4$
·62 -

Hence 256 at the lowest
6 | 256 obtained gives 1.587 amphours
62
512
1536
1587.2

figuring on auby

NiO to Ni_2O_3
78.6%

$NiO\,HHO$
$NiO\,HHO\,HO$
NiO - $HHHOO$

59
16
75 | 590 (78.6%
525
650
600
5400
786
214

1 gram NiO to Ni_2O_3

$NiO\,H_2O$.
$NiO\,H_2O.O$.

NiO. ·2140 X

NiO. - 786 milg Ni.
NiO 214 " O -

1.572 - milg Ni.
642 - milg O -

634 -

2.36 per mg-hr

NiO HH-O

Ni(OH)$_2$

NiOHH

NiOH$_2$O -

NiO to MnO$_2$

126 mg OX

60

126 | 298 | 2.36
252
46 0
126
126 mg 8. per sym

63 -

634
20
126.0

59
32
93 | 590 | 634 -
558 | 36.6 -
32
570
41

Developing notes

132-H. On 1st + last row very strong rings

241-H Strong black spot. near Corner both plates

154-H 1 very black ring on top about same place

22 SR - Bat all very strong rings one very faint one may be a spot. as uniform all over + no ring to 3rd or 4th row 3rd from end.

84 SR Top + bat plates shows 2 black opals one at one end one at other + both in row next to top or bottom strong - bottom at 1st was a ring.

82 SR. abt middle near end both plates. black spots. its one sided + shows thus on both plates. Strong rings on Bat.

16 SR Rings -

139-H. Rings strong.

134-H - No rings on either ?

150 H Bat - May be a spot 2nd or 5th row about 4 or near.

105 H - Top + B. Both have very strong black spot, thinks there are wrong ones

193-H. Top + bat row have black spot. bat plate corresponding but black ring with black behind it

212
288
1696
1696
424
61056
180.

288 | 1800 (6.25
1728
720
576
1440
1440

2 | 288 (1.6
1
10.88
3.4
1.6
204
34
544

.625
340
625
340
2500
1875
21250

206-H - Both plates show slings at rings yet seen -

247-H - T+B all rings

60 SR Bot - 3 on next to last row spot Top plate, Cant see,

10 SR Develop bad changed to old develop. Top - may be black spot near middle! Bot, Rings - too dark to see.

38 SR all rings

93 SR T+B 1 spot in middle row.

44 SR Spot 4th on 2nd or 5th. Top Cant be sure plate dark.

251-H Rings
37 SR "
54 SR "
202 H. "
190 H "

NH_4Cl $NiCl_2$ 33.7

14
4
32
64
114
58
172

172) 580 (3.37
516
640
516
124

19 SR T+B 4 or 5th on outer row black spot

493 R Rings
98-H = Apparently 2 spots on bottom plate or may be ring slant out quite dark —
Can't say about Top plate

12 SR Ring
170-H - Bot = 1 big halo
White Center big ring
1 very weak spot Yellowish
229 SR Top - 2nd from end

28 SR top = 2nd from 3rd row.
2nd on front - very black Bot plate.
2nd on bot row not so good as Top plate —

235 SR Rings
13 - SR - Excellently strong Rings
78 SR Seem to be on Top.
1 2nd row with white ring
on Bot 3 or 4 with white rings
plates too dark to see well —
Top plate spot dont show when
head front and lamp —

95 SR Blackspot weak on one end

131-H - Rings

180-H - "

242-H - Top — two black spots one strong Bot - One black spot middle very strong pbly other

199-H - Extraordinary black Rings really every hole came out

101-H - Top — 2nd or 2nd row or 5th row - Bot - One very black on 2nd or 5th row

198-H - Big fine black spot Top near middle row ditto Bottom or a strong ring

119-H - Rings
201-H - "
120 - H - Black spot both plates 3rd from end

94 5R Bot – 2nd row mid black spot think one on top –

205 H – Bot – on end middle very black ring Top – rings strong.

380 Rufn – Very black spot Bot – in Corner but shows as ring when held up to red light.

106 H Bot – Black spot 2nd row 3 strong rings Top of bottom row in line –

124 H May be two spot

116 H – Rings

74 5R – Top – apparently two black spots. Bot – undecided

195-H - Top — Spot aft middle
only rings in bot plate.

103-H - Bot - Blackspot 2nd
row - ditto in Corner - Top —
blackspot 2nd row

73 SR Top - Maybe two spots
on end — Bot - ditto two blacks
Corroply & Unmk -

90 SR Rings

153-H - Rings

48 SR — 5 blackspots
in row Bot + Top plates
Bot 1 blackest spot —
Top row — p.bly more

198 H Rings
267 H — Top — Weak black
spot top row - Bot —
Corroply blackspot

80 SR Rings —

204-H – 3rd row No 4
both plates strong black spot

197 H Bot — Probably 3rd
Row 2nd spot.
Funny Top shows no rings in
developer but holding to light
shows strong rings

110 H – Top — Possibly two
spots near middle — Bot —
strong rings Count here.

211 - H – One in Corner good
Bot – Nothing to correspond.

144-H – Bot – Bleached +
halo spots may be weak
black spot – Top – rings –

105 H – Bot — 3 black
spots in row one strong
one on end.

133 H Rings
115 H "

85 SR two black spots on top one strong — Bot — two or 3 black rings one Corresp'dg to top.

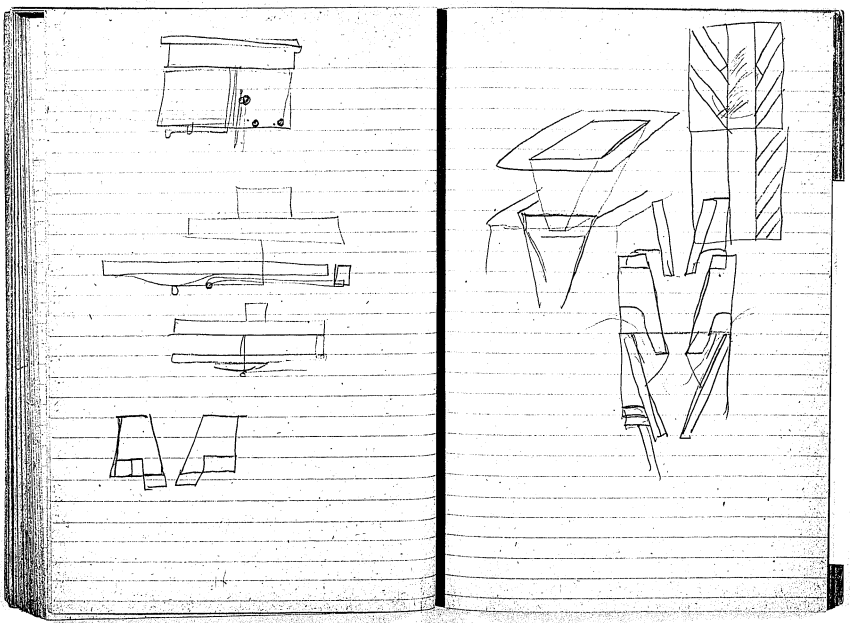
142-H - Think may be 2 or 3 faint spots on Bot — one on Top plate

163 H - Maybe 1 or 2 black spots both plates poor

246-H - Top — 1st on 2nd row strong — Bot — Extra black ring Corresp'dg but rings but blacker than other rings —

89 SR Top — 2nd on 2nd row black spot — Bot — Cant say — lots black

186 – Rungō –



176
72
95
1232 71
124

180
71
126
127

178
71
178
177

52

220
52
94
110
127

1246
125

177
71
177

170
72
98
60 —

1239
52
210 127

120 —

125
120
250
125

105
19

21 169
71
169

125
250
150 watts

169
71
169
125

128 amp 125 average Dio U 150 watts, 219 input,
50 watts Saved — 169 — input

60
500 Hour

219
60
31.9 — 10c $1.31 —

196 169
60
101.9 — 100 — 31c Saved 1.0
1.55 5
7.7 22

150 watts — 219
60
9.00 150 — 219
150
69

69 watts Heat

150

290
52
58
145.0
150

290
52
142
5

280
52
56
140

285
52
57.0
142.5

215
71
215
150.0

214
71
142.4
149.9

150 watts output — 290 input 52% Effy
150 " 213 input 71 "
140 watts Heat
60 " "

43% less heat

17 Kilowatt — $ 1.70 —
12.7 127
43 cents Saved at 10c

213
150
63

290
150
17

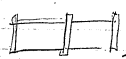
290
60
17.9

213
60
127.9

140
42
98
56
50

1.00
.002
7.8"

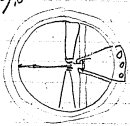
6000
1000
24
3
72.



1.25
1.25
625
125
1.56 25
1.35000

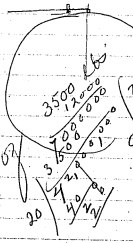
1.55
1.35
775
465
155
1.35
209.25

209 grms



600 (1728 (288
1200
5288
4800
4000

288 | 44600 (155
288
1540
1440
1400



120
4.02
3500 60
12000
3000
3000
3

$NH_4Cl\ Ni''\ Cl_2\ 6H_2O$

— 14

100

Anhy - $NiCl_2\ 6NH_3$

18

20%

59 17 102 ? 34%

102
64
166
59
225

14
4
32
64
12
96

225 | 590 | 4500 | 1450 | 222 | 118 | 340 | 1190 | 1020 | 760

(34

222
59
281 | 1590 | 1280 | 280

(20